Tectalk Smart + Series

User Manual

Contents

Safety Warning 3
Equipment and Accessories Supplied 3
Powering the Transceiver 4
Installation the Batteries 4
Charge Information 5
LCD-Display 5
Control Buttons 6
- Power – On/-Off 6
- PTT-Button (**P**ush-**T**o-**T**alk) 6
- Up-Button 7
- Down-Button 7

Operating Modes and Features 7
- PMR-Operation 7
- Channel-Selection 8
- CTCSS-Mode 8
- VOX Mode 8
- Roger Beep 9
- Button Beep 10
- Call Ringer 10
- Keypad Lock 10
- Channel Scan Operation 11
- Battery Alert 11
- Background illumination 11

Notes for good Communication 12
Warning 12
Troubleshooting 12
Technical Specifications 13
Frequency Table 13
CTCSS Tone Subcode Table 14
Service Hints and Documentation 14
European 2 years warranty 15
CE Declaration 16

Thank you for purchasing this Albrecht radio.
All our products are built to offer excellent value for money by combining advanced features, great design and manufacturing quality. To ensure you are familiar with the operation and features of your radio and in order to obtain the best performance, please read this manual carefully before operation.

Safety Warning

Never attempt to use or charge alkaline or dry cell batteries, as batteries may burst causing personal injury and damage to the product. When recharging Nickel Metal Hydride (NiMH) batteries with the supplied Albrecht-charger or wall adapter, use only the supplied or Albrecht-approved rechargeable NiMH batteries. Use of the Albrecht-charger with other brands of accumulators is not recommended, as accumulator charging times will vary with different brands. Avoid placing the **Tectalk Smart+** PMR transceiver for prolonged periods of time in direct sunlight or temperatures below –20°C or above 60°C. Keep the antenna at least 2,5cm away from your head and body. Do not use your **Tectalk Smart+** with a damaged antenna. Place the rubber covers on the jacks when not in use.

Equipment and Accessories Supplied

2 Radios
Instruction Manual
Double stand charger
230 V wall adapter
2 headset / microphone combinations
2 x 3 pcs rechargeable NiMH batteries

Please note that the supplied headsets are not designed for motor bike communication!

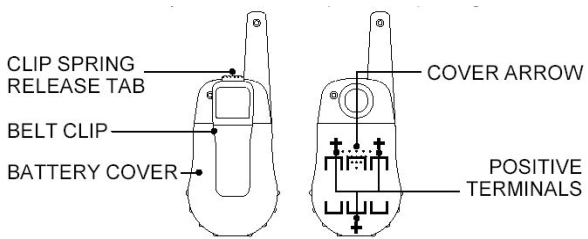
Powering the transceiver

Your **Tectalk Smart+ R1** PMR 446 transceiver operates on three **AAA size rechargeable NIMH batteries**. (Non-Rechargeable

Alkaline Batteries shall not be used, because Alkaline batteries do not meet the requirements for keeping the maximum output power more stable for the whole operating time). The charging time is typically 12-15 hours. You can charge one or both radios at the same time with the supplied desk charging cradle. It is also possible to charge one radio by inserting the charge cable into the Charge / Headset socket.

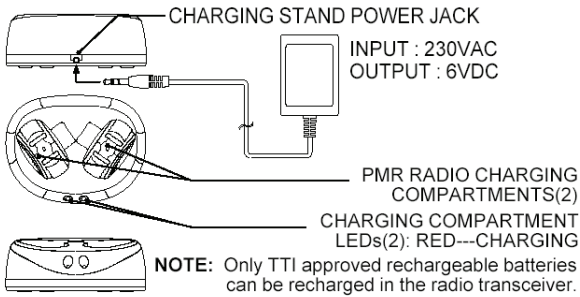
Installation of the batteries

Battery installation is made more convenient when the belt clip is either rotated left or right to the horizontal position, or is removed. simply rotate the clip in either direction to the horizontal position. Be careful not to use excessive force. To remove the clip, press down on the spring release tab and pull the clip straight out from the radio body.



1. Using thumb, press down on battery cover at arrow and slide cover down.
2. Then lift cover at bottom to open. Remove cover.
3. Insert three AAA NiMH batteries (positive (+) end toward the top beginning at left side and alternating positive terminals as shown).

Charge Information



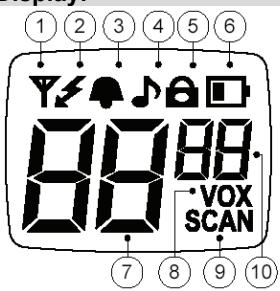
DESKTOP CHARGING STAND

For charging of rechargeable batteries, only the supplied CE-approved AC adaptor shall be used in compliance with the following specifications:

* INPUT : AC 230V 50Hz 30mA
* OUTPUT : DC 6V 200mA

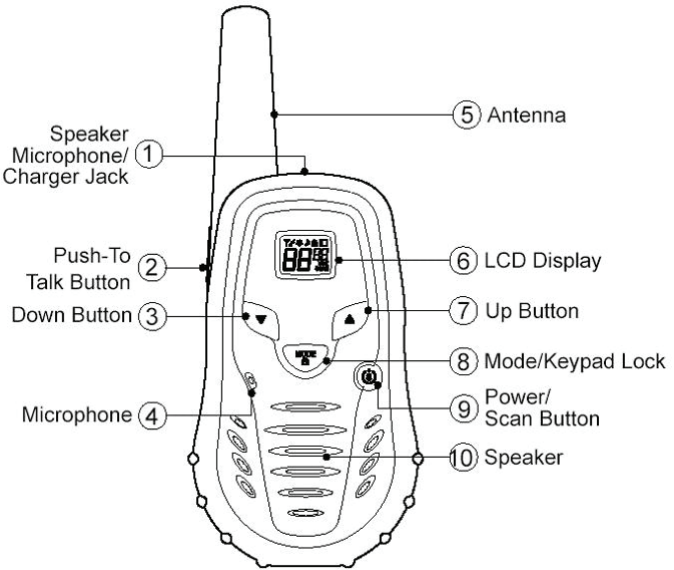
Do not operate the radio during battery charging !

LCD-Display:



1. Transmit Icon
2. Receive Icon
3. Key Tone Icon
4. Roger Beep Icon
5. Keypad Lock Icon
6. Low Battery Level Icon
7. Channel Number Display
8. Voice Activated Tansmission Icon(VOX)
9. Channel Scan Icon
10. CTCSS Subcode Icon

Control Buttons



(1) Power on-off Button

Press and hold the POWER on/off button for at least 2 seconds. You will hear a confirming melody to indicate the unit is on. To turn the unit off, press and hold the button for at least 2 seconds.

(2) Push-To-Talk (PTT) Button

Pressing and holding this button will allow you to speak to any transceiver that is set to the same channel and privacy code setting as yours. Hold the transceiver approximately 5-6 cm from your mouth as you speak into the built in microphone. After you have finished speaking,

release the PTT Button to allow reception of incoming signals. Whenever the button is pressed, the transmit icon ( ) will appear. When receiving an incoming signal, the Recieve ( ) icon will appear. The PTT button can also be used as a two-way call ringer. Pressing the button twice quickly will call another party on the same channel.

(3) Up Button

In the standby mode, pressing this button will increase the listening volume. The current volume is indicated (1-7). When in function edit mode this button will be used to adjust the unit's settings.

(4) Down Button

In the standby mode, pressing this button will decrease the listening volume. When in function edit mode this button will be used to adjust the unit's settings.

Operating Modes and Features

PMR Operation

- Press and hold the POWER On/Off button for 2 seconds to turn on power.
- Press the MODE button so the channel number flashes.
- Select the desired channel with the Up and Down Buttons. The Recieve icon ( ) appears to indicate an incoming call.
- Press and hold the ***PTT*** button to transmit, then speak into the microphone clearly and slowly. The transmit icon ( ) appears on the display while the button is pressed.
- Release ***PTT*** button to receive.
- Communication can only be accomplished when the channel and CTCSS tone frequency of at least two parties are the same.

- The CTCSS subcode (**01-38**) will be displayed on the LCD panel if the CTCSS tone frequency function is enabled (not **oF**).

Channel Selection

- From standby mode, press the MODE button once; the channel number flashes.
- Press the Up or down button briefly to move to the desired channel number.
- Press the ***PTT*** button momentarily to confirm selection.

CTCSS Mode (Sub-Code) Selection

- From standby mode, press the MODE Button twice; a flashing **oF** or sub-code number is displayed.
- Press the Up or Down button to select the desired sub-code for use (**01-38**).
- Press the PTT button to confirm selection.
- The CTCSS mode can be turned off by selecting **oF** as the setting.

NOTE : To communicate with other PMR radios, all radios in Your network must be switched to the same channel and CTCSS subcode. To communicate with other PMR units that do not have subcodes, switch your unit to the same channel with the subcode set to **oF**. The CTCSS subcodes do not prevent others from hearing your transmissions. This will only allow you to ignore all traffic on a given channel not using the same subcode.

VOX Mode Selection

When your voice or signal is detected using the internal or external microphone/headset the radio transmits automatically without the need to press the PTT button. ***Note:*** Not all available external microphone/headsets on the market are designed to be used under VOX control and PTT as well!

To enable the VOX operation:

- From standby mode, press the MODE button 3 times unitil the VOX icon (**vox**) appears with **on** or **oF**.
- Press the Up or Down button to select the VOX **on** or **oF** as desired.
- When enabled, the VOX icon ( ) appears.
- Press the ***PTT*** button momentarily to confirm selection.

Roger Beep Tone

The Roger Beep is a tone which is automatically transmitted whenever the ***PTT*** button is released.

To enable and disable the Roger Beep tone:

- From standby mode, press the MODE Button 4 times unitil the flashing Roger Beep icon ( ) appears with **on** or **oF**.
- Press the Up or Down Button to select the tone on or off as desired.
- When enabled, the Roger beep icon ( ) appears.
- Press the PTT button momentarily to confirm selection.

Button Beep (keytone)

This feature allows the transceiver to sound a confirmation tone whenever the following keys are pressed: Power On/Off/Scan Button, Up/Down Buttons and MODE Button.

To enable and disable the keytone:

- From standby mode, press the MODE Button 5 times unitil the flashing keytone icon ( )appears with **on** or **oF**.
- Press the Up or Down Button to select the tone on or off as desired.
- When enabled, the keytone icon ( ) appears.

- Press the PTT button momentarily to confirm selection.

Call Ringer

The transceiver provides a transmit call ring melody to alert other users of an incoming call. From standby mode, pressing the ***PTT*** button twice in quick succession will transmit the call ringer melody.

To select the call ringer tone :

- From standby mode, press the MODE Button 6 times unitil the Call Ringer tone number flashes.
- Press the Up or Down Button to select the one tone out of 3 tones.
- Press the ***PTT*** button momentarily to confirm selection.

Keypad Lock

The lock function is to avoid the accidental changes of radio settings. Only POWER On/Off, the PTT and Volume Up/Down buttons will operate while lock function is enabled.

To set the keypad lock operation :

- From standby mode, press and hold the MODE button for 2 seconds or until the lock icon (🔒) appears on the display.
- To disable the lock operation, press and hold the MODE button for at least 2 seconds ; the lock icon (🔒) will disappear

Note: while the **SCAN** mode is active, the ***MODE*** button is disabled. Please note that the SCAN mode will reduce the overall battery life since the battery save function cannot be used during scanning.

Channel Scan Operation

This feature allows you to monitor all channels automatically for valid signals. While scanning, you can transmit and receive. When

a signal is received, the scan is interrupted and will return to scan mode approximately 5 seconds after the interruption.

To enable the channel scan mode:

- From standby mode, momentarily press the ***Power*** On/Off Button; **SCAN** will appear on the LCD display.
- The radio will automatically display each channel (1-8) in a scanning order to find an active main channel.
- When the unit doesn't find any signals and you want to transmit, press ***PTT*** to return to primary channel operation. The transceiver will automatically resume scanning approximately 15 seconds after the communication is completed.
- If there is no activity and you want to leave the scan mode, press the Power On/Off button momentarily and the unit will return to normal operation; the SCAN icon (**scan**) will disappear from the LCD display
-

Battery Alert

When the low battery icon (▭) blinks steadily on the LCD panel, recharge the unit or install fresh charged NiMH batteries.

Background illumination

By pressing any buttons, the LCD backlight is turned on the LCD illumination will be turned off automatically in about 5 seconds after any final button is pressed.

Notes for good Communication

1. **Tectalk Smart +** channels are shared on a 'take turns' basis. This means other groups may be talking on any of the channels. A common code of courtesy is to switch to another vacant channel and not to attempt to talk over someone who is already using the channel you first selected.

2. The radio has been designed to maximize performance and improve transmission range in the field. To avoid interference, it is recommended that you do not use the units closer than 2 meters away from each other.
3. To increase battery life, use the SCAN feature only where necessary. This feature will reduce operating time considerably.

Warning

- Remove the batteries from the transceiver if it is not expected to be used for long periods. This will eliminate the possibility of chemicals leaking from the batteries and corroding the transceiver.
- Avoid exposing the transceiver to water or extremes of temperature.
- Do not use this device in or near a mining or factory facilities, where remotely triggered explosives are used, or in areas labelled "Blasting Area" or “Explosion Protected”.
- Do not attempt to modify or in any way increase the output of this transceiver. Its output is designed to meet the legal limits.
- Do not use this device or charge its batteries in potentially explosive atmospheres.
- Turn your transceiver off wherever posted notices restrict the use of radios or cellular telephones.
- Facilities such as hospitals may use equipment that is sensitive to RF energy, because of this reason most hospitals do not allow the use of any private radio sets!
- Turn your transceiver off on board aircraft when requested to do so.
- Do not place your radio in front of a vehicle's air-bag. If the air-bag deploys, it could propel the transceiver like a projectile causing severe injuries.

Troubleshooting

If you have problems with your **Tectalk Smart +**, reset your unit by turning it off and removing the batteries. And re-insert the batteries and turn the unit on again. Check the battery power level since in many cases low batteries cause problems such as no transmission, weak receiving signal and low sound.

Technical Specification

Operating frequency	446.00625 to 446.09375 MHz
Channel capacity	eight channels
Channel spacing	12.5 kHz
Power source	3 X 1.2 V 'AAA' rechargeable NiMH batteries

Main Channel Frequency Table

Channel	Frequency (MHz)	Channel	Frequency (MHz)
1	446.00625	5	446.05625
2	446.01875	6	446.06875
3	446.03125	7	446.08125
4	446.04375	8	446.09375

CTCSS Tone Subcode Table

No.	Freq.	No	Freq.	No.	Freq.	No.	Freq.
1	67.0	11	97.4	21	136.5	31	192.8
2	71.9	12	100.0	22	141.3	32	203.5
3	74.4	13	103.5	23	146.2	33	210.7
4	77.0	14	107.2	24	151.4	34	218.1
5	79.7	15	110.9	25	156.7	35	225.7
6	82.5	16	114.8	26	162.2	36	233.6
7	85.4	17	118.8	27	167.9	37	241.8
8	88.5	18	123.0	28	173.8	38	250.3
9	91.5	19	127.3	29	179.9	OF	-
10	94.8	20	131.8	30	186.2		

Where to find service hints and documentation

Our technical documentation is updated regularly. You can download the latest versions of user manuals, technical documents and also the dual language original Declaration of Conformity, as well as service hints or FAQ's any time from our server under

http://www.hobbyradio.de

If You should have a problem, please have a look to the service hints or frequently asked questions (FAQ) before You send Your PMR radio back to the service centre.

Disposal of defective electronic items

The European WEEE Directive does not any more allow to dispose any used electronic items via household trash bins. The local communities will provide containers for disposal of electronic waste. Please use these facilities, it will be Your contribution to proper recycling of electronic material, and it is free of charge for You!

European 2 years warranty

The distributor, dealer or retail shop warrants to the original retail purchaser of this product that should this product or any part of it, under normal use and conditions, be proven defective in material or workmanship within 2 years from the date of original purchase, such defect(s) will be repaired or replaced with new or reconditioned product (at the company's option) without charge for parts and repair labor. To obtain repair or replacement within the terms of this warranty, the product is to be delivered with proof of warranty coverage (e.g. a copy of your bill of sale), specification of defect(s), to the distributor, dealer or his authorized repair center.

The Company disclaims liability for communications range of this product. The warranty does not apply to any product or part there of which, in the opinion of the company, has suffered or been damaged through alteration, improper installation, mishandling, misuse, neglect, accident, or by removal or defacement of the factory serial number/bar code label(s). The warranty does not apply to accessory parts or problems caused through not authorized or not recommended accessories like of the units like batteries, external power supplies and over voltage caused through external power supplies, light bulbs, broken antennas, broken belt clips, broken or damaged acrylic glass windows and cabinet parts.

Please contact the dealer or person where You have purchased Your radio.

CE Declaration of Conformity
PMR 446 Two-Way-Radio
Albrecht Tectalk Smart +

This radio complies to all relevant European Standards and Regulations for PMR 446 radio service. This radio may be used only in EU and other states applying the R&TTE directive of the European Community. However, there is still a restriction for residents in Italy: a one-time payment is requested before using the radio the first time, but this payment is not requested from tourists who use the radio only during holidays.

This unit complies to the European R&TTE and LVD Directive and harmonized standards **EN 300 296-2 V.1.1.1, EN 301 489-1 V.1.6.1 , EN 301 489-05 V.1.3.1** and **EN 60 950-1:2006** . The product can be used as **Class 1** equipment in following countries:

A, B, BG, CH, CY, CZ, D, DK, E, EST, F, FIN, FL, GB, GR, HR, H, I, IS, IRL, L, LV, LT, M, N, NL, P, PL, RO, RSM, S, SK, SLO

Dreieich, 21.01.2009

© 2009 Alan Electronics GmbH, Daimlerstr. 1 k - D- 63303 Dreieich
www.albrecht-online.de www.alan-electronics.de

Repair Service:
Hotline & repair inquiries: 01805-012204 (0.14 Euro/ Minute from German network, more from mobile networks)

PST professional support technologies GmbH
Breitscheider Weg 117 a – D-40885 Ratingen
email: alan-service@ps-tech.de